I. GENERAL

THIS PROJECT INVOLVES UPGRADING THE EXISTING PEDESTRIAN CROSSINGS AT THE INTERSECTION OF MD 450 AND MD 197 IN PRINCE GEORGE'S COUNTY TO CURRENT APS/CPS STANDARDS. THE EXISTING HANDICAP RAMPS WILL BE UPGRADED TO CURRENT STANDARDS MD 450 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED MODE. THERE IS EXCLUSIVE LEFT TURN PHASING FOR BOTH APPROACHES OF MD 450. THE MD 450 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY WITH CONCURRENT PEDESTRIAN MOVEMENTS TO CROSS BOTH LEGS OF MD 197. THERE IS EXCLUSIVE LEFT TURN PHASING FOR BOTH APPROACHES OF MD 197. THE MD 197 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY WITH ALTERNATE PEDESTRIAN PHASING TO CROSS BOTH LEGS OF MD 450. THIS INTERSECTION IS INTERCONNECTED ALONG MD 450 WITH THE INTERSECTIONS OF MD 450 AT GRENVILLE LN. TO THE WEST AND MD 450 AT ENT. TO ST. PIUS CHURCH TO THE EAST.

III. SPECIAL NOTE:

ALL UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE BECAUSE THESE UTILITIES MAY BE MODIFIED PRIOR TO AND DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FILED. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR. THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER IMMEDIATELY.

EQUIPMENT LIST FOR CONTRACT NO. XX4275185

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADIMISTRATION

ITEM QUANTITY UNIT DESCRIPTION

9570 24 SF [UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN

| EA WII-2 (36" X 36") GROUND MOUNTED

| EA WI6-7p(L) (24" X I2") GROUND MOUNTED

| EA R 4-7 (24" X 30") GROUND MOUNTED

| 8 EA R 10-3 (1) (9" X 15") GROUND MOUNTED

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM	QUANTITY	UNIT	DESCRIPTION
1001	1 .	EA	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2002	i	ĈΥ	TEST PIT EXCAVATION
5005	io	ĹĖ	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	435	ĹF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	1635	ŜF	5 INCH CONCRETE SIDEWALK
8002		ĒΑ	2 WIRE CENTRAL CONTROL UNIT
8007	8	ĒA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8008	8	ĒA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8010	8	ĒA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8013	Ī	ĒA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8018	165	ĹF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8019	106	ŠF	DETECTABLE WARNING SURFACES
8020	190	ŠF	REMOVE & RESET DECORATIVE BRICK
8023	1715	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)
8025	1,795	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
8031	<u>`30</u>	LF	NEG - APPROVED - FURNISH & INSTALL WOOD SIGN POSTS UP TO 4" X 6"
8033	165	LF	NEG - APPROVED - FURNISH & INSTALL #6 BARE COPPER GROUND WIRE
8034	24	SF	NEG - APPROVED - INSTALL OVERHEAD OR GROUND MOUNTED SIGN

CONTACTS

The contact persons for this project are as follows:

Ms. Anyesha Mookherjee Assistant District Engineer - Traffic Phone: (301) 513-7318

Mr. Vernon Stinnett Assistant District Engineer - Maintenance Phone: (301) 513-7304

Mr. Victor Grafton Utility Engineer Phone: (301)513-7350

Mr. Richard L. Daff, Sr. Chief, Traffic Operations Division Phone: (410) 787-7630

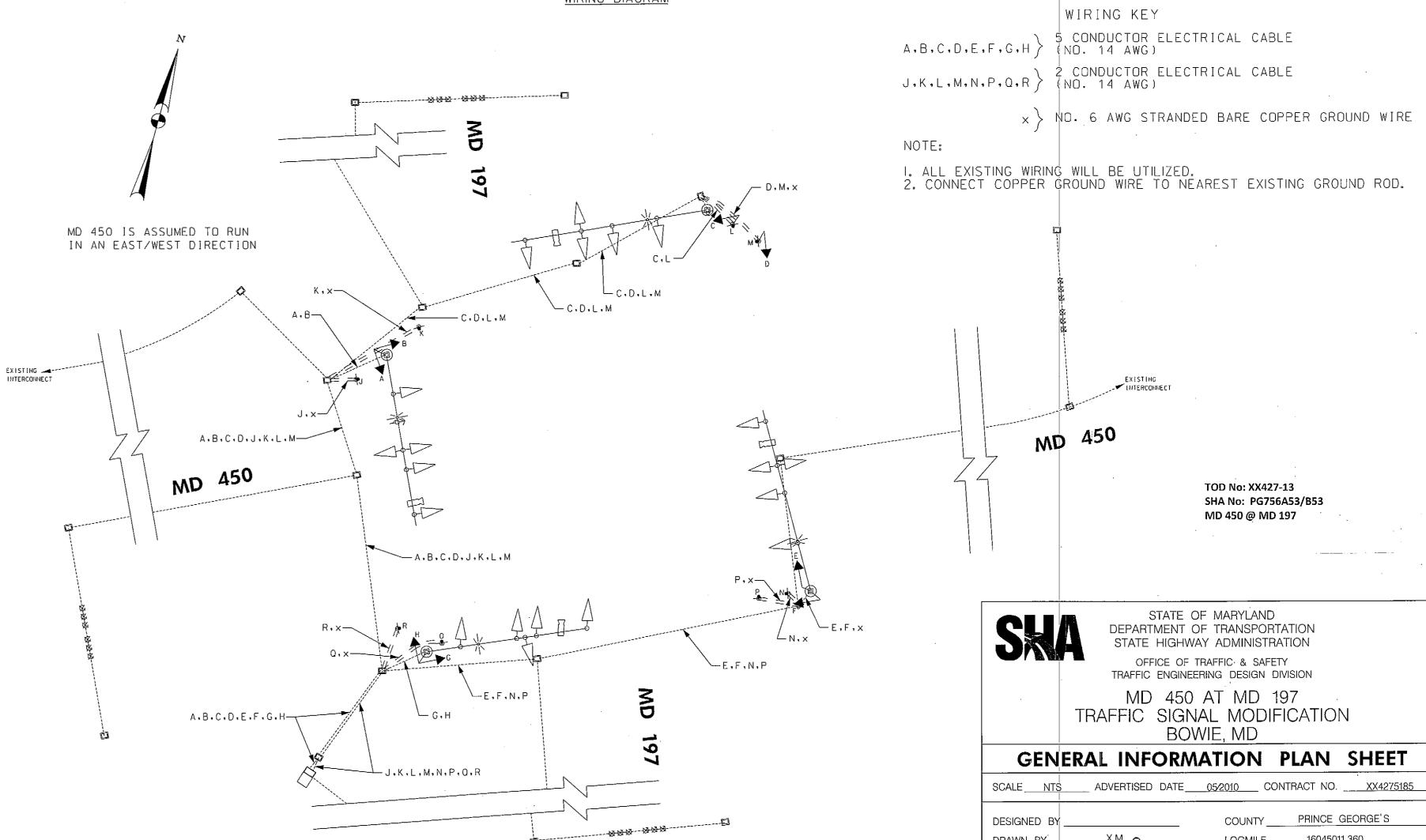
Mr.Ed Rodenhizer Supervisor, Signal Operations Phone: 410-787-7650

Mr. Sonny Bailey Supervisor, Sign Shop Phone: 410-787-7676

Mr. Mike Stocker Supervisor, Signal Warehouse Phone: 410-787-7668 PHASE CHART

	1 (R-) (Y-) (G)	2 ¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬	3 (R) (Y) (G)	4 (R) (Y) (G)	5 (R) (Y) (G)	6 ()	7 (R) (Y) (G)	8 (R) (Y) (G)	9 R Y G	10 (R) (Y) (G)	11 (R-) (Y-) (G-)	12	13	14 (R) (Y) (G)	15 (R) (Y) (G)	16	17 QR- QY- QG-	18 (R) (G)	19 (R) (Y) (G)	20 (R Y G	21	22 [2]	23	24 [注]	25 [Ž-]	26 [2-1]	27 (***)	28	
PHASE 1 AND 5	фG-	фG-	ФG-	R	R	 4-G−	<-G-	<-G-	R	R		4-R-	ΦR-	R	R	◆R-	◆R-	◆R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW	
1 AND 5 CHANGE	4-Y −	4-Y −	4 Y −	R	R	 4-Y−	<-Y-	<-Y -	R	R	4-R−	ΦR-	4R−	R	R	◆R-	ФR-	ФR-	R	R	DW	DW	DW	DW	DW	DW	DW	DW	\bigvee_{T}
PHASE 2 AND 6	4R−	ΦR-	4-R−	G	G	4-R−	4-R−	ΦR-	G	G	4-R−	d-R−	ΦR-	R	R	ΦR−	4R−	4R−	R	R	ĎW	DW	DW	W/K	DW	W/K	W/K	W/K	00
PED CLEAR	ΦR-	-R−	ΦR-	G	G	4-R−	4-R−	4R−	G	G	ΦR-	⊲-R −	4R−	R	R	ΦR-	<-R−	<-R-	R	R	DW	DW	DW	FL⁄DW	DW	FL⁄DW	FL⁄DW	FL⁄DW	7
2 AND 6 CHANGE	-R-	ФR-	4-R	Υ	Υ	4-R-	d-R−	4-R-	Y	Υ	ФR-	d-R−	4-R−	R	R	4R−	◆R-	d-R−	R	R	DW	DW	DW	DW	DW	DW	DW	DW	00 T
PHASE 3 AND 7	4-R−	 4-R−	d-R−	R	R	⊄R-	d-R−	⊄R-	R	R	фG-	фG-	фG-	R	R	ФG-	ФG-	4-G-	R	R	DW	DW	DW	DW	DW	DW	DW	DW	
3 AND 7 CHANGE	ΦR-	4R−	ΦR-	R	R	4R−	-R-	-R-	R	R	⊹ Y−	→ Y−	4 Υ—.	R	R	4 Υ-	4 Y −		R	R	DW	DW	DW	DW	DW	DW	DW	DW	1
PHASE 4 AND 8	ΦR-	4R−	ΦR-	R	R	4R−	d-R-	4R-	R	R	ФR-	d-R-	ΦR-	G	G	4R−	4-R−	d-R-	G	-G	DW	DW	DW	DW	DW	DW	DW	DW	
4 AND 8 CHANGE	d-R−	d-R−	ФR-	R	R	d-R−	d-R-	4-R-	R	R	⊄R-		4R−	Υ	Υ	4R−	4R−	-R-	Υ	Y	DW	DW	DW	DW	DW	DW	DW	DW	4 \ \
4 AND 8 ALT	-R-	⊄R-	4R−	R	R	⊄R-	ФR-	4-R-	R	R	ФR-	d-R-	4R−	G	G	◆R-	<-R−	ФR-	G	Ġ	W/K	W/K	W⁄K	DW	W/K	DW	DW	DW	
PED CLEAR	ФR-	⊄R-	4R−	R	R	4-R−	ФR-	4-R-	R	R	d-R−	d-R-	4R−	G	G	◆R-	ФR−	4-R−	G	Ġ	FL/DW	FL⁄DW	FL⁄DW	DW	FL⁄DW	DW	DW	DW	
4 AND 8 CHANGE	ФR-	-R-	4R−	R	R	4-R−	ФR-	4-R−	R	R	⊄R-	4R-	4R−	Υ	Υ	ΦR-	ΦR-	-R-	Υ	Y	DW	DW	DW	DW	DW	DW	DW	DW	- -
PRE-EMPTION	фG-	фG-	ФG-	R	R	 4-G−	фG-	-G-	R	R	4-R−	d-R−	ΦR-	R	R	4R−	ΦR-	ФR-	R	R	DW	DW	DW	D	DW	DW	DW	DW	
PRE-EMPT CHANGE	← Y−	4 Y−	4 Y −	R	R	4-Y-	<- Y -	<-Y−	R	R	◆R-	d-R−	4R−	R	R	◆R-	ΦR-	-R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW	T.
FLASHING OPERATION	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/F	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK	\frac{1}{1} \frac{1}{1} \cdot \frac{1}{1}

WIRING DIAGRAM



3Y: xiaoyu

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BRUDIS & ASSOCIATES, INC.

Consulting Engineers

9220 Rumsey Road; Suite 110 Columbia, Maryland 21045 Phone 410-884-3607 DRAWN BY _ CHECKED BY

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SHEET NO. 3 OF 3